

THE ANNALS
AND
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[FIFTH SERIES.]

“..... per litora spargite muscum,
Naiades, et circum vitreos considite fontes:
Pollice virgineo teneros hic carpite flores:
Floribus et pictum, divæ, replete canistrum.
At vos, o Nymphæ Craterides, ite sub undas;
Ite, recurvato variata corallia trunco
Vellite muscosis e rupibus, et mihi conchas
Ferte, Deæ pelagi, et pingui conchyliis succo.”
N. Parthenii Giannettasii Ecl. 1.

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I.—*Contributions towards a General History of the Marine Polyzoa.* By the Rev. THOMAS HINCKS, B.A., F.R.S.

[Continued from vol. vii. p. 161.]

[Plates I.-IV.]

VI. POLYZOA FROM BASS'S STRAITS.

THE present paper will be devoted chiefly to a report on the new forms which occur in the dredgings obtained by Capt. W. H. Cawne Warren in Bass's Straits, and presented by him to the Liverpool Free Museum*.

The whole collection, which we owe to Capt. Warren's intelligent use of opportunities which are commonly wasted, is a very interesting one; and he has the merit of having made an important addition to our knowledge of the fauna of the Australian seas.

The material submitted to me for examination is compa-

* A list of the species detected in this very interesting collection, including a diagnosis of such as appear to be new, has been presented to the Liverpool Philosophical and Literary Society, and will be published in its 'Transactions.' The type specimens are deposited in the Liverpool Free Museum.

ratively small in amount; but it has yielded no less than ninety species, of which twenty-three appear to be undescribed. I say *appear* to be undescribed; for I confess that in several cases I have had the greatest difficulty in making out the forms intended by previous writers; and in the interest of all students I venture to protest against meagre diagnoses without figures as a serious injury to science.

The greatest depth from which dredgings were obtained seems to have been 40 fathoms: a large proportion of the species were taken in the neighbourhood of Curtis Island.

Of the ninety species included in the collection, twenty-two (or about a quarter) are European forms and occur on our own coasts. They are as follows:—

<i>Eucratea chelata</i> , <i>Linn.</i>	<i>Rhynchopora bispinosa</i> , <i>Johnst.</i>
<i>Cellaria fistulosa</i> , <i>Linn.</i> , var.	<i>Porella concinna</i> , <i>Busk.</i>
<i>Membranipora lineata</i> , <i>Linn.</i>	<i>Smittia Landsborovii</i> , <i>Johnst.</i> , var.
<i>Micropora coriacea</i> , <i>Esper</i> , var.	— <i>reticulata</i> , <i>J. MacGill.</i> , and var.
<i>Cribrilina radiata</i> , <i>Moll.</i>	— <i>trispinosa</i> , <i>Johnst.</i>
<i>Microporella ciliata</i> , <i>Pall.</i> , vars.	<i>Stomatopora Johnstoni</i> (?), <i>Heller.</i>
— <i>Malusii</i> , <i>Aud.</i>	— <i>dilatans</i> (?), <i>Johnst.</i>
<i>Schizoporella Cecillii</i> , <i>Aud.</i>	<i>Idmonea atlantica</i> , <i>E. Forbes.</i>
— <i>biaperta</i> , <i>Michelin.</i>	<i>Diastopora suborbicularis</i> , <i>Hincks.</i>
<i>Hippothoa divaricata</i> , <i>Lamx.</i>	— <i>patina</i> , <i>Lamk.</i>
— <i>distans</i> , <i>MacGill.</i> (= <i>H. flagellum</i>).	<i>Lichenopora hispida</i> , <i>Fleming.</i>

The most interesting special points determined by means of Capt. Warren's collection are undoubtedly the structural peculiarities of *Membranipora radificera*, n. sp., and *Cribrilina ferox*, MacGill., which are noticed in the account of those species.

Suborder CHEILOSTOMATA.

Family Cellulariidae.

CABEREA, Lamouroux.

Caberea grandis, n. sp.
(Pl. III. figs. 4, 4 a, 4 b.)

Zoarium dichotomously branched. *Zoecia* in from three to six rows, subquadrate; aperture subelliptical, sunk, the inner surface of the cell-wall minutely roughened; two spines on the outer margin above, and one on the inner; operculum with a very broad peduncle, entire, pretty regularly oval, with a loop-like marking across the centre; on the outer edge of the marginal cells, a little below the vibraculum, a small sessile *avicularium*, elongate, tapering off to a point below,

the upper extremity occupied by a triangular mandible; below each of the inner cells two small raised *avicularia*, with pointed mandible directed downwards*; occasionally gigantic *avicularia* resembling those on the marginal cells (except in size) distributed over the zoarium. *Vibracular grooves* extending to the very base of the organ; seta of great length and serrate. *Oœcium* immersed, smooth; front flattened, surrounded by a raised border.

Loc. Off Curtis Island.

In some cases the large *avicularia*, of the same type as those on the marginal cells, scattered amongst the *zoœcia* are a striking character; but they are very commonly wanting. The *vibracular seta* in this species is of remarkable length.

Caberea rudis, Busk, which was originally described from Bass's-Straits specimens, also occurs in Capt. Warren's collection.

Family Membraniporidae.

MEMBRANIPORA, De Blainville.

Membranipora pyrula, n. sp.
(Pl. I. fig. 2.)

Membranipora lineata, MacGillivray, Prodr. Zoology of Victoria, Polyzoa, decade 3, p. 34, pl. xxvi. fig. 3.

Zoœcia pyriform, quincuncial, hyaline, silvery; area elongate-oval, occupying three fourths of the length, wholly covered in by membrane, surrounded by a thickened border, from which spring on each side four broad flattened spines with an expanded base, which bend over the area and meet in the centre; a single spine at the bottom, or (sometimes) two or three; on each side of the semicircular orifice an erect spine; the portion of the cell below the area smooth and glassy, the base subtruncate or (sometimes) pointed. Large, elongate, subspatulate *avicularia*, with dark-coloured mandible, distributed amongst the *zoœcia*, occupying a distinct area and replacing a cell. *Oœcia* somewhat elongate, smooth, with a central keel running from the margin to the summit, and on each side of it, close to the margin, a fossa.

Loc. Bass's Straits, very common.

This handsome species is undoubtedly identical with the *M. lineata* of MacGillivray's work on the Victorian Polyzoa; but it has no claim whatever to the Linnean name.

* Except when the oœcium is present, in which case it points upwards.

Membranipora inarmata, n. sp.
(Pl. IV. fig. 4.)

Zoæcia ovate, placed closely together in lines, alternate (quincuncially disposed); aperture occupying the whole of the front, with membranous covering; margins raised, thin, smooth, bearing on each side from four to six tall, straight, silvery, pointed spines, which are inclined inwards towards the centre; at the top a single erect spine on each side. *Avicularia* none. *Oæcium* rounded, very shallow, just covering the extremity of the cell, smooth, silvery, often projecting into a point in front, with a broad calcareous band stretching over it.

Loc. Bass's Straits, on shell.

In this species the acutely-pointed spines do not bend abruptly over the cell, but incline inwards slightly towards the centre, the tips almost meeting. The cells are very regularly disposed in lines and are placed close together; those in neighbouring rows alternate, so that the arrangement is quincuncial. The band across the oæcium is formed by the margin of the cell above it. *Avicularia* seem to be totally wanting. There is nothing very distinctive in this form; but I cannot identify it with any described species.

Membranipora vitrea, n. sp.
(Pl. I. fig. 1.)

Zoæcia regularly oval, very shallow; area occupying the whole front, and closed in entirely by membrane; margin thin, smooth; two rather stout spines on each side at the top. *Oæcium* smooth, glassy, broader than high, rather flattened, with a raised triangular figure in front, from the apex of which a rib passes off to the back. *Zoarium* forming a delicate network of very fine glassy material.

Loc. Off Curtis Island.

The cells are remarkable for their extreme regularity of form.

Membranipora punctigera, n. sp.
(Pl. III. fig. 3.)

Zoæcia elongate-ovate, commonly running to a point below; aperture ovate or elliptical, with a membranous covering, occupying more than three fourths of the front, the remainder being filled in by a thin minutely-punctate lamina, which is continued up the sides as a narrow edging; margin raised, thin, smooth; at the bottom of most of the cells an *avicularium*, slightly raised, with an acute mandible directed upwards.

Oæcium rounded, smooth and silvery, somewhat compressed, on the front an area inclosed by a raised line, which is minutely pitted over.

Loc. Off Curtis Island, on *Retepora* &c.

Membranipora radificera, n. sp.

(Pl. II. figs. 6, 6 a, 6 b.)

Zoæcia very large, quincuncial, ovate, attached by means of numerous slender radical tubes given off from the dorsal surface; aperture occupying the whole front, with a membranous covering; margin rather thin and smooth; two short and stout spines at the top of the cell, and a little below on one side a single forked spine; opposite to it a very large sessile avicularium, placed on the margin and occupying a great proportion of the side, somewhat turned over towards the area, with a rather slender pointed mandible, directed upwards, the beak hooked at the extremity; occasionally an avicularium on each side of the zoæcium. *Oæcium* (?).

Loc. Bass's Straits, spreading over soft mud.

This is the most interesting form which occurs in the Warren collection. It is, I believe, the only known *Membranipora* in which attachment is effected by means of tubular fibres emitted from the dorsal surface of the zoæcia. In other cases the members of this genus adhere directly by the base of the zoarium, which is closely soldered to the substance on which the polyzoon grows. But in *M. radificera* each cell gives off a cluster of very long slender tubes, so that the inferior surface of the zoarium is completely villous (Pl. II. fig. 6 b). This structural modification points of course to some peculiarity of habitat; and accordingly we find that the Bass's-Straits specimens had evidently been spreading over a soft mud filled with small particles of shell, stone, &c., into which the long rootlets had penetrated, thus holding the polyzoon firmly to its place. Whether the structure is constant in the species as it now exists, or whether it is an exceptional adaptation to peculiar circumstances, I am not in a position to say. It exists in all the specimens I have examined; but they were all subject to the same conditions.

We have instances of remarkable plasticity in the radical appendages of the Cellulariidae; but in this case the very existence of a radical appendage is an anomaly, attachment being effected in this tribe, as I have said, by simple adhesion.

Another structural peculiarity occurs in this species which deserves notice. The cells are not united in the usual way; they are partially disjunct (Pl. II. fig. 6 a). Each one is

connected with its neighbours by six stout but very short processes, which originate one at each extremity of the cell and two on each side. These six connecting-bands are separated by as many rather deep depressions or hollows, which do not, however, pass through the zoarium. The disconnection of the cells therefore is only partial; but we have in this structure a most interesting transition-form between the solid and compact zoarium and the disjunct and retiform condition, which distinguishes the genus *Diachoris*. The dorsal surface of the zoecium in *M. radicifera* is decidedly convex, and always bears a number of small raised tubular processes, from which the radical tubes originate. The latter are very slender and often of great length.

The avicularium of this species is of a very interesting type. Though perfectly sessile and fixed, it is to a large extent of the bird's-head form, and represents a developmental stage which is not far distant from the highest or articulated grade.

In *M. Carteri* (see 'Annals' for July 1880, pl. xi. fig. 8), which has a movable avicularium, we have a link between *Membranipora* and *Bugula*; through the present species the former genus is connected with *Diachoris*, which has the closest affinity with *Bugula*. We seem here to catch a glimpse of the lines along which the evolution of the Bicellarian forms may have proceeded.

Membranipora inornata, n. sp.
(Pl. IV. fig. 5.)

Zoecia quincuncial, shallow, obscurely six-sided, often rounded at the top and bottom; margins thin, smooth; aperture occupying the whole of the front, with a membranous covering, which lies on a level with the rim of the cell; orifice placed at the very top of the aperture in a kind of recess in the margin, much broader than high (almost transversely elliptical), the margin rising a little above it, and very slightly hollowed out to receive it. *Oecium* (?). *Zoarium* flat, depressed, of a brownish colour.

Loc. Bass's Straits, on shell.

This species bears a very close resemblance in many points to *M. hexagona*, Busk; but a comparison of it with a British specimen of the latter (for which I am indebted to Mr. Busk's kindness) shows them to be distinct. The cells of *M. inornata* are much larger than those of *M. hexagona*, and much less regularly hexagonal; the orifice is much larger and of a different shape, that of the British species being small, almost semicircular, and placed at some little distance from the top.

In the present form the membranous wall appears to be of stouter material, and the margins of the cells are more distinct; the zoarium is always of a brownish colour. A figure of *M. hexagona* is given for comparison with the present form (Pl. IV. fig. 6).

Family Microporidæ.

MICROPORA, Gray.

Micropora coriacea, Esper, var.

The variety without the marginal knobs, which I have figured in a previous paper ('Annals,' November 1880, pl. xvi. fig. 6), occurs amongst Capt. Warren's dredgings. The avicularia, which are sparingly developed on British specimens of this species, are very abundant on those from Australia.

STEGANOPORELLA, Smitt.

Steganoporella magnilabris, Busk.

This species, which is commonly found incrusting, forms in Bass's Straits erect, bilaminar, foliaceous expansions of considerable size; it was obtained by Pourtales in a similar condition off the coast of Florida. It seems to be very variable in its mode of growth, and might pass in turn for a *Lepralia*, *Eschara*, and *Siphonella*, under the older systems.

Family Cribriliniidæ.

CRIBRILINA, Gray.

Cribrilina ferox, MacGillivray.

I have some doubt whether this curious species should be referred to the genus *Cribrilina*. The structure of the cell-wall seems to be peculiar, and may possibly afford a basis for a new generic group; but my specimens do not yield the material for a satisfactory study of the development of the zoecium.

It is a point of much interest (not noted in MacGillivray's description) that this species exhibits the remarkable peculiarities which I have described as occurring in *Membranipora radiciifera*.

The cells are connected as in the latter form; and the zoarium is attached by means of radical tubes originating from the dorsal surface. The specimens which occur are growing upon sponge, the soft substance of which is pene-

trated to some depth by a multitude of the slender rootlets. Whether the species is ever found on hard bodies, attached in the usual way, I do not know. All the specimens which I have examined are furnished with the radical appendages; and taking into account the convexity of the dorsal surface, I should have been inclined to suppose that this is the normal condition, and that in *M. radicifera* and *Cribrilina ferox* we have forms specially modified for life on soft or porous substances. But as MacGillivray states that the species is found incrusting Algæ, the question whether the radical appendages are provisional or permanent structures can only be settled after further investigation*.

Cribrilina tubulifera, n. sp.
(Pl. I. fig. 7.)

Zoæcia oval, white, the front occupied by a flattened area of about the width of the orifice, which is surrounded (except above) by a row of erect tubular processes (about fourteen) open at the top; the inclosed space crossed by shallow depressions or furrows, in each of which are situated four rather large pores; numerous minute slightly raised foramina irregularly distributed; outside the line of tubules the cell-wall, which descends abruptly, is broken up into a number of lobate processes separated by narrow elongate spaces; orifice arched above, lower margin straight, peristome not raised, three spines above, two of which are usually very slightly divided at the top. *Oæcium* (?).

Two small colonies occur on shell.

Cribrilina speciosa, n. sp.
(Pl. I. fig. 8.)

Zoarium of a brownish colour. *Zoæcia* large, usually elongate-ovate (sometimes shorter), quincuncial, distinct, not very convex, carinate, a large proportion of the front occupied by an oval area traversed down the centre by a prominent keel, from which ridges (7-12) pass to the border, the furrows between them not punctured; area surrounded by a narrow margin of smooth cell-wall; orifice suborbicular, rather contracted below; no spines or avicularia. *Oæcium* large and rounded, smooth, dense, whitish, slightly flattened in front, and above the flat space rising into a knob, from which a shallow sigmoid fissure descends on each side.

* I have a specimen spreading over a tough fibrous substance (? stem of weed) into which the radical fibres (which are present in great abundance) have penetrated, binding the polyzoon closely and firmly to the surface.

Loc. Off Curtis Island, on shell, forming a large spreading patch.

This handsome species belongs to the same group as *C. figularis*.

Cribrilina monoceros?, MacGillivray.
(Pl. III. fig. 6.)

Zoæcia subcylindrical or ovate, flattish, separated by a smooth raised line, highly calcified and confluent in older states; the whole of the front surface pierced by numerous holes of various shapes and sizes, some of them large; orifice well arched above, lower margin straight, with a strong central mucro, on the front of which is a small pointed *avicularium*, the mandible directed upwards; immediately above the orifice two or three small pointed *avicularia*; four oral spines, two on the upper margin, tall, slender, forked at the extremity, and two (placed one on each side) just within the peristome, immediately above the lower margin, articulated, tall and very stout, forked; frequently great numbers of *avicularia* of various forms distributed over the zoarium. *Oæcium* rounded, subimmersed, smooth, often with a thickened rib round the opening, and bearing usually several small *avicularia*, closed by a large, dark-coloured operculum.

Loc. Bass's Straits, very common on shells, *Reteporæ*, &c.

I refer this form doubtfully to the *Lepralia monoceros* of MacGillivray. If the two are indeed identical, his brief description must have been founded on imperfect specimens; for it omits some important characters, such as the *avicularium* on the mucro and the forked spines.

The species varies much with age, and in its older states presents a flat uniform surface (the boundaries of the cells being obliterated) completely covered with large perforations. When young the surface is bright and somewhat shining. There is sometimes only one of the large articulated spines*. In certain states there is a remarkable profusion of *avicularia* of various forms: some, very large, elongate, raised and placed on a distinct area, occur chiefly on the margin of the colony (Pl. III. fig. 6*a*); others of a smaller size and sessile are scattered abundantly over the cells, whilst occasionally a very different kind is present in great numbers, which is erect, and rises considerably above the surface, rounded on one side and having on the other a triangular mandible, directed straight upwards. I have also met with a spatulate form.

* MacGillivray's description, "a large thick vibraculum or spine *below the mouth* on one side" does not apply to this appendage, which is placed within the peristome.

Remarkable as the profusion and variety of these appendages are in many cases, specimens frequently occur in which only the oral avicularia are present.

Family Microporellidæ.

MICROPORELLA, Hincks.

Microporella (*Eschara*) *mucronata*, MacGillivray.

This species is very common amongst the dredgings, sometimes forming large erect and branching zoaria, sometimes creeping on shells, in which state it bears a general resemblance to *M. violacea*. In all cases it originates in a crust of larger or smaller extent, from the middle of which the erect stems rise.

I have little doubt that this form is identical with the *Eschara lichenoides* of Busk, though not with Milne-Edwards's species of that name*. Busk describes two avicularia, situated one on each side immediately below the mouth, whilst MacGillivray only notes one placed centrally; but the fact is that both conditions occur on one and the same specimen: the younger cells have very frequently the pair of avicularia; in the older portions of the colony there is more commonly one. The cluster of stellate pores is the distinctive character. If I am right in supposing that M.-Edwards's *E. lichenoides* is a different form, MacGillivray's name will hold its place, unless, indeed, the older *E. coscinophora* of Reuss should prove to be the same thing.

In older states, as calcification advances, the front of the cell is occupied in great part by a large oblong depression, within which the orifice and the pores, and not unfrequently the avicularia, are included.

I have referred to the resemblance between the cell of this species and that of *M. violacea*: their leading features, which are sufficiently marked, are identical; and it is impossible not to recognize a close relationship between them; yet in the older systems these kindred forms are relegated to distinct families, simply because, though they both commence life as incrusting species, one of them grows upward when adult.

HAPLOPORELLA, n. gen.

Gen. char.—*Zoecia* destitute of a membranous area or aperture, and of raised margins; orifice arched above, with the lower lip entire; no special pores.

* Kirchenpauer has pointed out that Busk's species is quite distinct from that of Milne-Edwards.

This group is formed for species with a Microporellidan orifice, but destitute of the median pore, which is so striking a character of the genus *Microporella*. It is difficult to believe that this structure has no special significance; it is at least a much better clue to affinity than mode of growth. If this be so, the Microporellidan forms from which it is absent may well be set apart as a distinct group*.

Haploporella nodulifera, n. sp.
(Pl. I. fig. 4.)

Zoecia massive and thick-walled, ovate, irregularly disposed, of a brownish colour; a depressed area extending downwards from a little below the orifice, and occupying a large proportion of the front, the cell-wall elevated around it, surface minutely roughened and punctured; orifice arched above, inferior margin straight; peristome slightly raised, three spines on the upper edge, with a black base; at each side of the orifice, on a level with the lower margin, a prominent nodule, often of a rich brown colour and polished. *Oecium* (?).

A single colony only has occurred on shell.

Haploporella lepida, n. sp.
(Pl. II. fig. 2.)

Zoecia hexagonal, very regular in shape, quincuncial, separated by somewhat shallow sutures and raised lines, slightly convex; surface minutely granular, shining, of a delicate greyish colour; orifice arched above, much broader than high, lower margin straight, rather raised and everted; peristome thin; a rather large circular perforation on each side a little below the orifice, and commonly a few others, usually smaller, round the edge of the cell. Occasionally an *avicularium*, placed on a distinct area, at the bottom of a cell, with an elongate mandible directed upwards. *Oecium* globose, prominent, granular.

Loc. Off Curtis Island, on shells.

A very pretty species, singularly regular and neat in appearance.

* Smitt's genus *Escharipora* (as far as I understand it) is founded for Microporellidan forms with more than a single pore. But the physiological significance is the same, whether there be one or many, and the distinction seems to be unimportant; so also are differences in the shape of the pore.

Family Porinidæ.

PORINA, D'Orbigny.

Porina (*Eschara*) *gracilis*, Lamouroux.
(Pl. III. fig. 5.)

Zoarium erect, irregularly branched, somewhat compressed. *Zoæcia* elongate, confluent, quincuncially disposed, the wall rising towards the orifice; surface reticulato-punctate; orifice, in young cells, arched above, the lower margin slightly curved inward; in adult cells suborbicular, moderately raised, the peristome thickened and bearing several (sometimes as many as six) round *avicularia*; at a very short distance below the orifice an elongate pore (which frequently becomes round as calcification proceeds). Small circular *avicularia* often distributed irregularly over the cells. *Oœcium* immersed.

Loc. Curtis Island, not uncommon.

Busk does not notice the oral *avicularia*; the two mamillary projections mentioned by him are *avicularian*. MacGillivray describes the pore as round; it is *primarily* elongate.

Family Myrizoidæ (part.), Smitt.

SCHIZOPORELLA, Hincks.

Schizoporella biaperta, Michelin (?=*Lepralia megasoma*, MacGillivray).

This species occurs in two conditions, incrusting and with an erect branching zoarium, often of very considerable size, the branches *cylindrical*. I can find no characters in the cell of the latter to distinguish it from that of the more usual crustaceous form. Mr. Waters records an Escharine variety from the Sicilian Pliocene, which is erect and *foliaceous*; so that this widely distributed form exhibits the most striking differences in its habit of growth.

Schizoporella triangula, n. sp.
(Pl. II. figs. 4, 4 a.)

Zoæcia subquadrangular, depressed, arranged in linear series, bordered by a raised line; surface reticulato-punctate, or thickly covered with nodules; orifice subtriangular, margin not raised, a sinus below marked off by two lateral dentate processes; immediately below the orifice an elongate *avicularium*, with pointed mandible directed straight downwards, either immersed or with the beak standing out prominently.

Oæcium very large, covering almost the whole of the cell above it, rounded, often traversed by raised white lines, with one or more projecting pointed processes on each side in front, overhanging the opening, and opposite to them on the lower margin two (sometimes more) strong conical teeth; surface covered with large nodules and punctured; orifice of the ovicelligerous cell very large, elongated transversely, with a slightly sinuated lower margin.

Loc. Bass's Straits, 40 fms., common.

The zoecia are often very irregularly disposed, turned in all ways, and variable in shape. They are sometimes much more convex than is usual, and ovate, losing much of the normal appearance. These irregularities occur amongst the secondary cells, which are developed upon the primitive layer.

The typical character is very constant in the primaries. *S. triangu*la belongs to the *S. linearis* group.

Schizoporella tumida, n. sp.
(Pl. I. fig. 3.)

Zoecia ovate, disposed in linear series, which radiate in all directions from a centre, perfectly smooth, moderately convex; orifice arched above, lower margin with a rounded sinus in the centre; peristome not raised; immediately below the orifice a pouch-like swelling, bearing on the upper surface a small rounded *avicularium*; frequently an ovate rising on one side of the cell, extending from the orifice down a considerable portion of its length, bearing on its upper extremity an immersed *avicularium*, with pointed mandible directed downwards. *Oæcium* globose and prominent, with a smooth surface.

Loc. Bass's Straits, on shell.

This species bears some resemblance to the *S. marsupium* described by Mr. Stuart Ridley in his valuable paper on the 'Alert' collections from the Straits of Magellan and Patagonia, but is, I think, distinct. Mr. Ridley (Proc. Zool. Soc. Lond. for Jan. 4, 1881, p. 48, pl. vi. fig. 6) identifies his species with the *Lepralia marsupium* of MacGillivray; but the latter is, I believe, a *Porella* very nearly allied to *P. minuta* of our own coasts, and extremely abundant in Bass's Straits. MacGillivray's diagnosis is unfortunately brief, giving no account of the shape of the mouth; so that it is by no means easy to determine the species which he had in view. On the whole, however, it agrees better with the *Porella* so common in South-Australian waters than with any other form I know.

Schizoporella acuminata, n. sp.

(Pl. II. fig. 1.)

Zoæcia short, lozenge-shaped (somewhat irregular), flattish, quincuncially disposed, bordered by a smooth raised line; an acuminate suberect extension of the cell-wall behind the orifice, the apex or peak of which is slightly bent forward, and occupied by a smooth somewhat nodular prominence; surface thickly covered with minute punctures; orifice semi-circular, with a rounded sinus on the lower margin, contracted at the opening and expanded below, rim slightly thickened; on one side, a little below the orifice, an *avicularium*, with pointed mandible directed upwards. *Oœcium* occupying the place of the acuminate extremity of the cell, large, rounded, deeply immersed, the opening the same as that of the cell, but larger than the ordinary orifice, closed by the opercular valve; surface punctate.

Loc. Off Curtis Island, a single colony incrusting another polyzoon.

A remarkable form, distinguished by the elevated peak-like upper extremity of the zoœcium.

HIPPOTHOA, Lamouroux.

Hippothoa distans, MacGillivray.*Hippothoa flagellum*, Manzoni.

A species occurs very abundantly amongst the Bass's Straits dredgings, creeping over shells &c., which is undoubtedly the *H. flagellum* of Manzoni. I believe that it is the form described by MacGillivray as *H. distans*; and if so, the latter name, as the older, must take precedence.

[To be continued.]

II.—*Description of a new Species of Alactaga from Mesopotamia.* By OLDFIELD THOMAS, F.Z.S., British Museum.

THE type specimens of the species here described (a male and a female) were obtained during the Euphrates expedition of 1835–37, and are now in the British Museum. They probably represent the "*Dipus jaculus*" of the list of Mammals of Arabia and Mesopotamia, given in the Appendix to Col. Chesney's account of that expedition*, being, to a superficial observer, somewhat similar to the *D. jaculus* (Pall. et auct. nec

* Vol. i. p. 728 (1850).